

Connecting via Winsock to STN

10/581,842 - R1 - Scheefers, H. CAPLUS structure search - (SRNT)

Welcome to STN International! Enter x:x

LOGINID:sssptau183lec

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * Welcome to STN International * * * * * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 DEC 01 ChemPort single article sales feature unavailable
NEWS 3 APR 03 CAS coverage of exemplified prophetic substances enhanced
NEWS 4 APR 07 STN is raising the limits on saved answers
NEWS 5 APR 24 CA/CAplus now has more comprehensive patent assignee information
NEWS 6 APR 26 USPATFULL and USPAT2 enhanced with patent assignment/reassignment information
NEWS 7 APR 28 CAS patent authority coverage expanded
NEWS 8 APR 28 ENCOMPLIT/ENCOMPLIT2 search fields enhanced
NEWS 9 APR 28 Limits doubled for structure searching in CAS REGISTRY
NEWS 10 MAY 08 STN Express, Version 8.4, now available
NEWS 11 MAY 11 STN on the Web enhanced
NEWS 12 MAY 11 BEILSTEIN substance information now available on STN Easy
NEWS 13 MAY 14 DGENE, PCTGEN and USGENE enhanced with increased limits for exact sequence match searches and introduction of free HIT display format
NEWS 14 MAY 15 INPADOCDB and INPAFAMDB enhanced with Chinese legal status data
NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role in records back to 1992
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching enhanced on STN
NEWS 17 JUN 26 NUTRACEUT and PHARMAML no longer updated
NEWS 18 JUN 29 IMSCOPROFILE now reloaded monthly
NEWS 19 JUN 29 EPFULL adds Simultaneous Left and Right Truncation (SLART) to AB, MCLM, and TI fields
NEWS 20 JUL 09 PATDPAFULL adds Simultaneous Left and Right Truncation (SLART) to AB, CLM, MCLM, and TI fields
NEWS 21 JUL 14 USGENE enhances coverage of patent sequence location (PSL) data
NEWS 22 JUL 14 CA/CAplus to be enhanced with new citing references features
NEWS 23 JUL 16 GBFULL adds patent backfile data to 1855

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items

Enter NEWS followed by the item number or name to see news on that

specific topic.

All use of STN is subject to the provisions of the STN customer agreement. This agreement limits use to scientific research. Use for software development or design, implementation of commercial gateways, or use of CAS and STN data in the building of commercial products is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 17:56:46 ON 17 JUL 2009

FILE 'REGISTRY' ENTERED AT 17:57:00 ON 17 JUL 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2009 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 16 JUL 2009 HIGHEST RN 1163859-78-6
DICTIONARY FILE UPDATES: 16 JUL 2009 HIGHEST RN 1163859-78-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

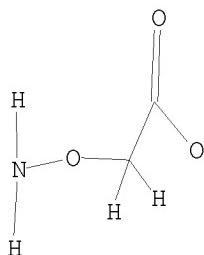
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stnqen/stndoc/properties.html>

=>
Uploading A:\10.581842.R1.Scheefers.SRNT..CAPLUS..str

L1 STRUCTURE UPLOADED

```
=> d 11  
L1 HAS NO ANSWERS  
L1 STR
```



Structure attributes must be viewed using STN Express query preparation.

```
=> s 11 sss sam
SAMPLE SEARCH INITIATED 17:57:29 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      3185 TO ITERATE

62.8% PROCESSED      2000 ITERATIONS          2 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                      BATCH **COMPLETE**
PROJECTED ITERATIONS:      60315 TO    67085
PROJECTED ANSWERS:          2 TO      170

L2                  2 SEA SSS SAM L1

=> s 11 sss full
FULL SEARCH INITIATED 17:57:36 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      64600 TO ITERATE

100.0% PROCESSED      64600 ITERATIONS          88 ANSWERS
SEARCH TIME: 00.00.01

L3                  88 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS          SINCE FILE        TOTAL
                                ENTRY             SESSION
FULL ESTIMATED COST          185.88           186.10

FILE 'CAPLUS' ENTERED AT 17:57:44 ON 17 JUL 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)
```

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 17 Jul 2009 VOL 151 ISS 4
FILE LAST UPDATED: 16 Jul 2009 (20090716/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases will soon be updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 22.

=> d his

(FILE 'HOME' ENTERED AT 17:56:46 ON 17 JUL 2009)

FILE 'REGISTRY' ENTERED AT 17:57:00 ON 17 JUL 2009

L1 STRUCTURE UPLOADED
L2 2 S L1 SSS SAM
L3 88 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:57:44 ON 17 JUL 2009

=> s 13
L4 1668 L3

=> s 14 and pharmaceu?
 426763 PHARMACEU?
L5 89 L4 AND PHARMACEU?

=> s 15 and cancer
 412927 CANCER
L6 8 L5 AND CANCER

=> d 16 ed ibib abs hitstr 1-6

L6 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 11 Dec 2008
ACCESSION NUMBER: 2008:1481452 CAPLUS
DOCUMENT NUMBER: 150:35114
TITLE: Preparation of radicicol and related macrocyclic compounds which inhibit HSP90 for therapeutic use in the treatment of neurofibromatosis
INVENTOR(S): Chen, Ruihong; Rubenstein, Allan E.; Shen, Xiaodong; Yu, Jin-Chen; Giovannini, Marco
PATENT ASSIGNEE(S): Nexgenix Pharmaceuticals, USA
SOURCE: PCT Int. Appl., 265pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

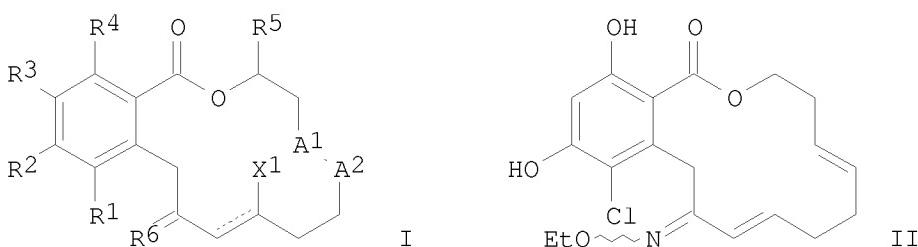
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008150302	A1	20081211	WO 2007-US75739	20070810
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,			

IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
 GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM

WO 2007143630 A2 20071213 WO 2007-US70367 20070604
 WO 2007143630 A3 20080327

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,
 KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
 MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
 GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: WO 2007-US70367 A 20070604
 OTHER SOURCE(S): MARPAT 150:35114 P 20060602
 GI



AB Macrocylic compds. of formula I [R1-R5 = H, halo, nitro, CN, alkyl, aryl, OH, alkoxy, (substituted) NH₂, etc.; R6 = O, (substituted) N-OH, etc.; A₁, A₂ = CH₂CH₂, CH=CH, CH(OH)-CH(OH), oxirane, etc.; X₁ = H, halo, OH, alkoxy, (substituted) NH₂, etc.], which are analogs of the radicicol/pochonin resorcylic acid lactones, were prepared for therapeutic use inhibiting the growth of NF2-deficient or NF1-deficient tumors and for use in the treatment of neurodegenerative diseases. These macrocycles may also be used in combination with other therapeutic agents, such as heat shock protein 90 (HSP90) inhibitor, cytotoxic agent, peptide, antibody, siRNA, antisense nucleic acid, a HDAC inhibitor, Trichostatin A or a derivative thereof, SAHA or a derivative thereof, LAQ824 or a derivative thereof,

FK228 or a derivative thereof. The compds. disclosed are useful as inhibitors of kinases and Heat Shock Protein 90 (HSP 90). Also disclosed are pharmaceutical compns. comprising an effective kinase-inhibiting amount or an effective HSP90-inhibiting amount of the compds. and methods for the treatment of disorders that are mediated by kinases and HSP90. Thus, II had EC₅₀ value of 9.8 μM and 3.8 μM against HCC1954 and SK-BR-3 tumor cells, resp.

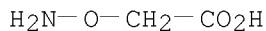
IT 2921-14-4, Carboxymethoxylamine hemihydrochloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of macrocyclic radicicol and related macrocyclic compds. which inhibit HSP90 for therapeutic use in the treatment of neurofibromatosis and for inhibiting the growth of NF2-deficient or NF1-deficient tumors)

RN 2921-14-4 CAPLUS

CN Acetic acid, 2-(aminoxy)-, hydrochloride (2:1) (CA INDEX NAME)



● 1/2 HCl

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 23 Apr 2008
ACCESSION NUMBER: 2008:493012 CAPLUS
DOCUMENT NUMBER: 148:509885
TITLE: Compositions and methods for treating neurological disorders or damage
INVENTOR(S): Diamandis, Phedias; Tyers, Mike; Dirks, Peter B.
PATENT ASSIGNEE(S): Can.
SOURCE: Can. Pat. Appl., 3pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

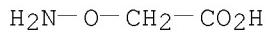
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2606658	A1	20080413	CA 2007-2606658	20071012
US 20090076019	A1	20090319	US 2007-871562	20071012
PRIORITY APPLN. INFO.:			US 2006-851615P	P 20061013

AB The invention relates to a clonogenic neurosphere assay to carry out high throughput screens (HTS) to identify potent and/or selective modulators of proliferation, differentiation and/or renewal of neural precursor cells, neural progenitor cells and/or self-renewing and multipotent neural stem cells (NSCs). The invention also relates to compns. comprising the identified modulators and methods of using the modulators and compns., in particular to treat neurol. disorders (e.g. brain or CNS cancer) or damage.

IT 2921-14-4, O-(Carboxymethyl)hydroxylamine hemihydrochloride
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(screening for compns. and methods for treating neurol. disorders or damage with modulators of neural stem cells)

RN 2921-14-4 CAPLUS

CN Acetic acid, 2-(aminoxy)-, hydrochloride (2:1) (CA INDEX NAME)



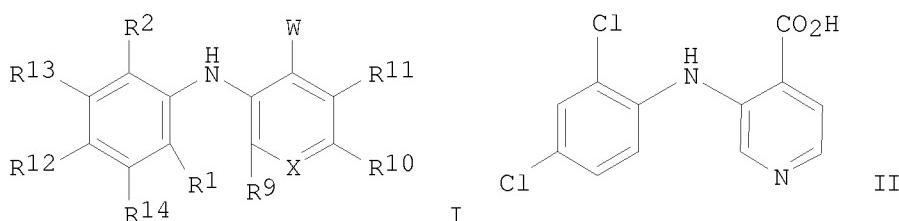
● 1/2 HCl

L6 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 05 May 2006
ACCESSION NUMBER: 2006:410012 CAPLUS

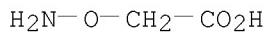
DOCUMENT NUMBER: 144:450620
TITLE: Preparation of 3-arylaminoypyridine derivatives for treatment of hyperproliferative diseases
INVENTOR(S): Abel, Ulrich; Deppe, Holger; Feurer, Achim; Graedler, Ulrich; Otte, Kerstin; Sekul, Renate; Thiemann, Meinolf; Goutopoulos, Andreas; Schwarz, Matthias; Jiang, Xuliang
PATENT ASSIGNEE(S): Applied Research Systems Ars Holding N.V., Neth.
SOURCE: PCT Int. Appl., 112 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006045514	A1	20060504	WO 2005-EP11257	20051019
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2005298932	A1	20060504	AU 2005-298932	20051019
CA 2582247	A1	20060504	CA 2005-2582247	20051019
EP 1802579	A1	20070704	EP 2005-795030	20051019
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
CN 101065358	A	20071031	CN 2005-80040688	20051019
JP 2008517024	T	20080522	JP 2007-537205	20051019
ZA 2007003912	A	20080925	ZA 2007-3912	20051019
BR 2005018192	A	20081104	BR 2005-18192	20051019
IN 2007DN02762	A	20070803	IN 2007-DN2762	20070413
MX 2007004781	A	20070511	MX 2007-4781	20070419
KR 2007067727	A	20070628	KR 2007-711310	20070518
NO 2007002595	A	20070622	NO 2007-2595	20070521
US 20090093462	A1	20090409	US 2007-665651	20070731
PRIORITY APPLN. INFO.:			EP 2004-24967	A 20041020
			WO 2005-EP11257	W 20051019

OTHER SOURCE(S): CASREACT 144:450620; MARPAT 144:450620
GI



AB Title compds. represented by the formula I [wherein R1, R2, R9-R14 = independently H, halo, cyano, heterocyclyl, etc.; W = (un)substituted heteroaryl, sulfonylamino, carbonylamino, etc.; X = N or N(=O); and pharmaceutically acceptable salts, solvates or prodrugs thereof] were prepared as MEK inhibitors. For example, II was provided by reaction of 2,4-dichloroaniline with 3-fluoropyridine-4-carboxylic acid. I were tested in human MEK1 enzyme, tumor cell proliferation and microsomal stability assay. Such compds. are useful as MEK inhibitors in the treatment of hyperproliferative diseases, such as cancer, restenosis and inflammation.
 IT 645-88-5, Aminoxyacetic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of 3-arylaminoypyridine derivs. for treatment of hyperproliferative diseases)
 RN 645-88-5 CAPLUS
 CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



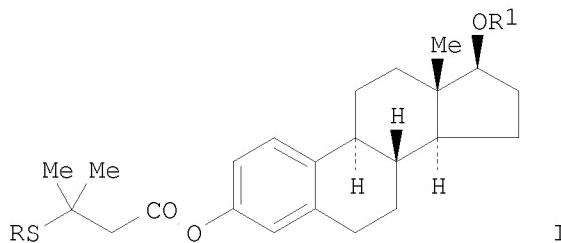
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
 ED Entered STN: 19 Nov 2004
 ACCESSION NUMBER: 2004:995933 CAPLUS
 DOCUMENT NUMBER: 141:424343
 TITLE: Preparation of nitrosated and nitrosylated compounds for use in pharmaceutical compositions as nitric oxide (NO) donors
 INVENTOR(S): Earl, Richard A.; Garvey, David S.; Gaston, Ricky D.; Lin, Chia-En; Ranatunge, Ramani R.; Richardson, Stewart K.; Stevenson, Cheri A.
 PATENT ASSIGNEE(S): Nitromed, Inc., USA
 SOURCE: PCT Int. Appl., 181 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004098538	A2	20041118	WO 2004-US7943	20040315
WO 2004098538	A3	20050331		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004237574	A1	20041118	AU 2004-237574	20040315
CA 2518506	A1	20041118	CA 2004-2518506	20040315
EP 1603933	A2	20051214	EP 2004-749385	20040315

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
 US 20060009431 A1 20060112 US 2005-221901 20050909
 PRIORITY APPLN. INFO.: US 2003-453963P P 20030313
 US 2003-482134P P 20030625
 WO 2004-US7943 A 20040315

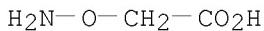
OTHER SOURCE(S): MARPAT 141:424343
 GI



AB Nitroso and nitrosyl derivs. of therapeutic agents, such as R-SNO, R-ONO, R-ONO₂ [R = antithrombogenic agent, thrombolytic agent, fibrinolytic agent, vasospasm inhibitor, potassium channel blocker, calcium channel blocker, antihypertensive agent, antimicrobial agent, antibiotic, platelet reducing agent, antimitotic agent, antiproliferative agent, microtubule inhibitor, antisecretory agent, remodeling inhibitor, antisense nucleotide, anticancer chemotherapeutic agent, steroid, nonsteroidal antiinflammatory agent, selective COX-2 inhibitor, immunosuppressive agent, growth factor antagonist or antibody, dopamine agonist, radiotherapeutic agent, heavy metal functioning as a radioplaque agent, biol. agent, aldosterone antagonist, α -adrenergic receptor antagonist, angiotensin II antagonist, β -adrenergic agonist, antihyperlipidemic drug, angiotensin converting enzyme (ACE) inhibitor, antioxidant, β -adrenergic antagonist, endothelin antagonist, neutral endopeptidase inhibitor, renin inhibitor, free radical scavenger, iron chelator, sex hormone, antipolymerase, antiviral agent, photodynamic therapy agent, antibody targeted therapy agent, gene therapy agent, etc.], were prepared for therapeutic use. The compds. and compns. of this invention can also be bound to a matrix. These nitroso- and nitro-compds. are claimed for use in treating cardiovascular diseases, for inhibiting platelet aggregation and platelet adhesion caused by the exposure of blood to a medical device, for treating pathol. conditions resulting from abnormal cell proliferation; transplantation rejections, autoimmune, inflammatory, proliferative, hyperproliferative or vascular diseases; for reducing scar tissue or for inhibiting wound contraction, particularly the prophylactic and/or therapeutic treatment of restenosis by administering at least one compound of the invention that is optionally nitrosated and/or nitrosylated, in combination with nitric oxide donors that are capable of releasing nitric oxide or indirectly delivering or transferring nitric oxide to targeted sites under physiol. conditions. The compds. of this invention are preferably estradiol compds., troglitazone compds., tranilast compds., retinoic acid compds., resveratrol compds., mycophenolic acid compds., acid compds., anthracenone compds. and trapidil compds. The cardiovascular diseases for treatment include restenosis, coronary artery disease, atherosclerosis, atherogenesis, cerebrovascular disease, angina, ischemic disease, congestive heart failure or pulmonary edema associated with acute myocardial infarction, aneurysm, thrombosis,

hypertension, platelet adhesion, platelet aggregation, smooth muscle cell proliferation, a vascular or non-vascular complication associated with the use of a medical device, wounds associated with the use of a medical device, pulmonary thromboembolism, cerebral thromboembolism, thrombophlebitis, thrombocytopenia or a bleeding disorder. The autoimmune diseases for treatment include a pathol. condition resulting from abnormal cell proliferation, polycystic kidney disease, an inflammatory disease, for preserving an organ and/or a tissue or for inhibiting wound contraction in a patient. The pathol. conditions resulting from abnormal cell proliferation include is a cancer, a Karposi's sarcoma, a cholangiocarcinoma, a choriocarcinoma, a neoblastoma, a Wilm's tumor, Hodgkin's disease, a melanoma, multiple myelomas, a chronic lymphocytic leukemia or an acute or chronic granulocytic lymphoma. The inflammatory diseases for treatment include rheumatoid arthritis, an inflammatory skin disease, restenosis, multiple sclerosis, a surgical adhesion, tuberculosis, a graft rejection, an inflammatory lung disease, an inflammatory bowel disease, an inflammatory disease that affects or causes obstruction of a body passageway, an inflammation of the eye, an inflammation of the nose, an inflammation of the throat or a neovascular diseases of the eye. Thus, S-mono- and O,S-dinitroso- β -estradiol derivs. I (R = NO, R1 = H, NO) were prepared via an esterification reaction of β -estradiol with 3-methyl-3-(2,4,6-trimethoxyphenylmethylthio)butyric acid using EDAP and DMAP in DMF to form mono-ester I [R = CH₂C₆H₂-2,4,6-(OMe)₃, R1 = H], cleavage of the trimethoxybenzyl S-protecting group of the mono-ester using L-cysteine and TFA in CH₂C₁₂ to give thiol I (R = R1 = H), and finally, treatment of the thiol with Bu nitrite in CH₂C₁₂ to form the desired S-mono- and O,S-dinitroso- β -estradiol derivs. The prepared compds. were assayed for suppression of proliferation of human coronary artery smooth muscle cells.

IT 2921-14-4, O-Carboxymethylhydroxylamine hemihydrochloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of nitrosated and nitrosylated compds. for use in pharmaceutical compns. as nitric oxide (NO) donors)
 RN 2921-14-4 CAPLUS
 CN Acetic acid, 2-(aminoxy)-, hydrochloride (2:1) (CA INDEX NAME)



●1/2 HCl

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

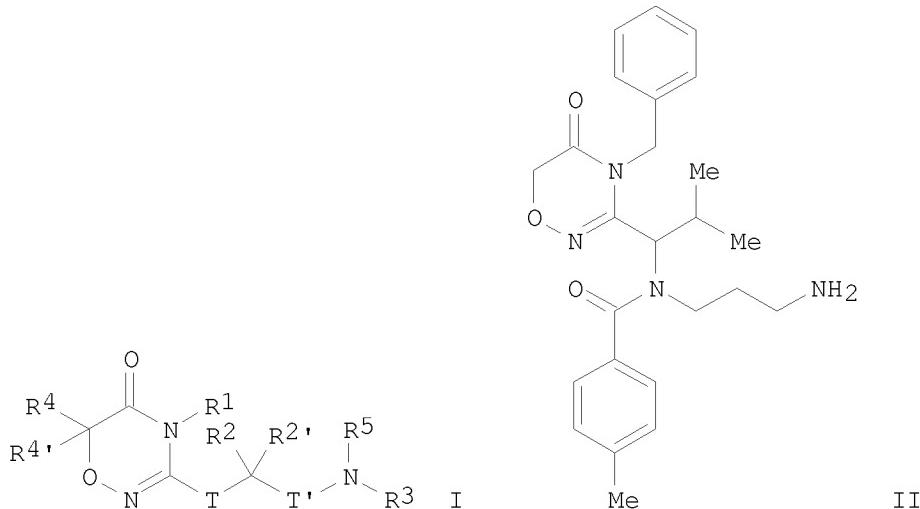
L6 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
 ED Entered STN: 28 Oct 2004
 ACCESSION NUMBER: 2004:902133 CAPLUS
 DOCUMENT NUMBER: 141:379946
 TITLE: Preparation of 5,6-dihydro-4H-1,2,4-oxadiazin-5-ones as KSP inhibitors for treatment of cellular proliferative diseases
 INVENTOR(S): Qian, Xiangping; Bergnes, Gustave; Morgans, David J.
 PATENT ASSIGNEE(S): Cytokinetics, Inc, USA
 SOURCE: PCT Int. Appl., 97 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004091547	A2	20041028	WO 2004-US9274	20040409
WO 2004091547	A3	20050506		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1622883	A2	20060208	EP 2004-758979	20040409
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2006523232	T	20061012	JP 2006-509333	20040409
US 20070232597	A1	20071004	US 2006-552611	20060920
PRIORITY APPLN. INFO.:			US 2003-462077P	P 20030410
			WO 2004-US9274	W 20040409

OTHER SOURCE(S): MARPAT 141:379946
GI



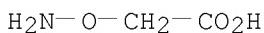
AB Title compds. I [wherein T, T' = independently a bond, (un)substituted alkylene; R1, R2, R2', R4, R4', R5, R8 = independently H, (un)substituted alkyl, (hetero)aryl(alkyl); R3 = H, (un)substituted alkyl, (hetero)aryl(alkyl), COR6, SO2R6a; or CR2R2', NR3R5, or NT'CR2R5 = (un)substituted heterocyclyl; or CR4R4' = (un)substituted cycloalkyl; R6 = H, (un)substituted alkyl, (hetero)aryl(alkyl), OR7, NHR8; R6a = (un)substituted alkyl, (hetero)aryl(alkyl), NHR8; R7 = (un)substituted alkyl, (hetero)aryl(alkyl); and pharmaceutically acceptable salts or solvates thereof] were prepared as KSP inhibitors. For example, a

7-step synthesis starting from CBZ-valine, benzylamine, (aminoxy)acetic acid, 3-(tert-butoxycarbonylamino)propanal, and p-toluoyl chloride produced II. Compds. of the invention inhibited cell proliferation with GI₅₀ values ranging from 200 nM to >20 μM. Thus, I and their pharmaceutical compns., optionally comprising another chemotherapeutic agent, are useful for the treatment of proliferative diseases and disorders, such as cancer, hyperplasias, restenosis, cardiac hypertrophy, immune disorders, and inflammation (no data).

IT 2921-14-4, (Aminoxy)acetic acid hemihydrochloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of oxadiazinones as KSP inhibitors for treatment of cellular proliferative diseases)

RN 2921-14-4 CAPLUS

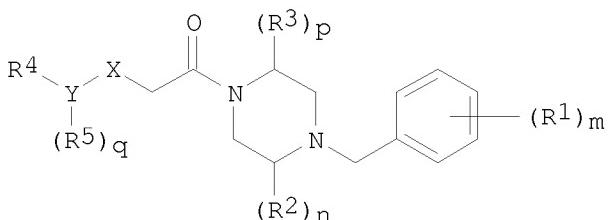
CN Acetic acid, 2-(aminoxy)-, hydrochloride (2:1) (CA INDEX NAME)



● 1/2 HCl

L6 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
 ED Entered STN: 14 May 2004
 ACCESSION NUMBER: 2004:392321 CAPLUS
 DOCUMENT NUMBER: 140:406826
 TITLE: Preparation of N-benzylpiperazine derivatives as chemokine receptor CCR1 antagonists useful as immunomodulatory agents
 INVENTOR(S): Blumberg, Laura C.; Brown, Matthew F.; Gaweco, Anderson S.; Gladue, Ronald P.; Hayward, Matthew M.; Lundquist, Gregory D.; Poss, Christopher S.; Shavnya, Andrei
 PATENT ASSIGNEE(S): Pfizer Inc, USA
 SOURCE: U.S. Pat. Appl. Publ., 58 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040092529	A1	20040513	US 2003-686993	20031016
PRIORITY APPLN. INFO.:			US 2002-422590P	P 20021030
OTHER SOURCE(S): GI	MARPAT	140:406826		

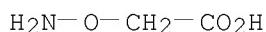


AB The present invention relates to compds. of the formula (I) and the pharmaceutically acceptable forms thereof [m = 0-5; n, p = 0-2; q = 0-4; X = O, S, CH₂, (un)substituted NH; Y = C₆-10 aryl, C₂-9 heteroaryl; R₁ = H, HO, halo, C₁-8 alkyl, C₁-8 alkoxy, HO-C₁-8 alkyl, cyano, NH₂, H₂N-C₁-8 alkyl, CO₂H, C₁-8 alkyl-CO, C₁-8 alkyl-CO-C₁-8 alkyl, CONH₂, or H₂NCO-C₁-8 alkyl; R₂, R₃ = H, oxo, C₁-8 alkyl, C₃-8 cycloalkyl-C₁-8 alkyl, C₆-10 aryl, C₆-10 aryl-C₁-8 alkyl, HO-C₁-8 alkyl, C₁-8 alkyl-O-C₁-8 alkyl, H₂N-C₁-8 alkyl, C₁-8 alkyl-NH-C₁-8 alkyl, (C₁-8 alkyl)2N-C₁-8 alkyl, C₂-9 heterocyclyl-C₁-8 alkyl, C₃-8 cycloalkyl-NH-C₁-8 alkyl, C₁-8 alkyl-CO-NH-C₁-8 alkyl-O-CO-NH-C₁-8 alkyl, H₂NCO-NH-C₁-8 alkyl, C₁-8 alkyl-SO₂NH-C₁-8 alkyl, C₂-9 heteroaryl-C₁-8 alkyl, H₂NCO, H₂NCO-C₁-8 alkyl; R₄ = (HO₂C)(H₂N)-C₁-8 alkyl, (HO₂C)[(C₁-8 alkyl)NH]-C₁-8 alkyl, (HO₂C)[(C₁-8 alkyl)2N]-C₁-8 alkyl, (HO₂C-C₁-8 alkyl)(C₁-8 alkyl)N, (HO₂C-C₁-8 alkyl)(C₁-8 alkyl)N-C₁-8 alkyl, (HO₂C-C₁-8 alkyl)(C₁-8 alkyl-SO₂)N, (HO₂C-C₁-8 alkyl)(C₁-8 alkyl-SO₂)N-C₁-8 alkyl, (HO₂C-C₁-8 alkyl)(C₁-8 alkyl-CO)N, etc.; R₅ = H, HO, halo, cyano, CO₂H, H₂N, C₁-8 alkyl-NH, (C₁-8 alkyl)2N, C₁-8 alkyl, C₁-8 alkyl-O, HO-C₁-8 alkyl, C₁-8 alkyl-NH-C₁-8 alkyl, (C₁-8 alkyl)2N-C₁-8 alkyl, etc.]. Moreover, the present invention is also directed at pharmaceutical compns. comprising the compound I and a pharmaceutically acceptable carrier. Furthermore, the present invention is directed at methods of using the herein described compds. and compns. for treating or preventing a disorder or condition that can be treated or prevented by antagonizing the CCR1 receptor in a mammal. Particularly, disclosed is a method of treating or preventing a disorder or condition selected from the group consisting of fibrosis, Alzheimer's disease, conditions associated with leptin production, sequelae associated with cancer, cancer metastasis, diseases or conditions related to production of cytokines at inflammatory sites, and tissue damage caused by inflammation induced by infectious agents, wherein the method comprises administering to a mammal in need of such treatment or prevention a pharmaceutically effective amount of the compound I or a pharmaceutically acceptable form thereof. The compds. I are potent and selective inhibitors of MIP-1 α (CCL3) binding to its receptor CCR1 found on inflammatory and immunomodulatory cells (preferably leukocytes and lymphocytes). [2-[3-[4-(4-fluorobenzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-3-oxopropyl]-5-methylphenoxy]acetic acid was condensed with methanesulfonamide in CH₂C₁₂ at room temperature for 18 h using 4-dimethylaminopyridine and 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride to give N-[2-[3-[4-(4-fluoro-benzyl)-(2R,5S)-2,5-dimethylpiperazin-1-yl]-3-oxo-propyl]-5-methylphenoxy]acetyl]methanesulfonamide. All the compds. I inhibited MIP-1 α (and the related chemokines shown to interact with CCR1) induced chemotaxis of THP-1 cells and human leukocytes with IC₅₀ of <10 μ M.

IT 2921-14-4, Carboxymethoxylamine hemihydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of N-benzylpiperazine derivs. as chemokine receptor CCR1 antagonists useful as immunomodulatory agents)

RN 2921-14-4 CAPLUS

CN Acetic acid, 2-(aminoxy)-, hydrochloride (2:1) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 17:56:46 ON 17 JUL 2009)

FILE 'REGISTRY' ENTERED AT 17:57:00 ON 17 JUL 2009
L1 STRUCTURE uploaded

L2 2 S L1 SSS SAM
L3 88 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:57:44 ON 17 JUL 2009

L4 1668 S L3
L5 89 S L4 AND PHARMACEU?
L6 8 S L5 AND CANCER

=> s l4 and fructose (w) bisphosphate
71837 FRUCTOSE
16719 BISPHOSPHATE
1370 FRUCTOSE (W) BISPHOSPHATE
L7 0 L4 AND FRUCTOSE (W) BISPHOSPHATE

=> s l4 and fructose
71837 FRUCTOSE
L8 6 L4 AND FRUCTOSE

=> d his

(FILE 'HOME' ENTERED AT 17:56:46 ON 17 JUL 2009)

FILE 'REGISTRY' ENTERED AT 17:57:00 ON 17 JUL 2009
L1 STRUCTURE uploaded

L2 2 S L1 SSS SAM
L3 88 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:57:44 ON 17 JUL 2009

L4 1668 S L3
L5 89 S L4 AND PHARMACEU?
L6 8 S L5 AND CANCER
L7 0 S L4 AND FRUCTOSE (W) BISPHOSPHATE
L8 6 S L4 AND FRUCTOSE

=> s l6 and l8
L9 0 L6 AND L8

=> d l8 ed ibib abs hitstr 1-6

L8 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 18 Oct 2002
ACCESSION NUMBER: 2002:792041 CAPLUS
DOCUMENT NUMBER: 137:289048
TITLE: Use of sugar phosphates, sugar phosphate analogs,
amino acids and/or amino acid analogs for the
modulation of the glycolysis enzyme complex of the
malate aspartate shuttle and/or transaminases, and
therapeutic use
INVENTOR(S): Eigenbrodt, Erich; Mazurek, Sybille; Grimm, Helmut
PATENT ASSIGNEE(S): ScheBo Biotech AG, Germany
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10164711	A1	20021017	DE 2001-10164711	20010313
DE 10112926	A1	20021002	DE 2001-10112926	20010313
DE 10112926	B4	20051110		

PRIORITY APPLN. INFO.: DE 2001-10164711 A1 20010313

OTHER SOURCE(S): MARPAT 137:289048

AB The invention discloses the use of amino acids, amino acid analogs, sugar phosphates, sugar phosphate-analogs, and mixts. of such substances, for the production of a pharmaceutical composition for the treatment of tumors and/or

for immunosuppression and/or the treatment of sepsis by modulation of the association of the glycolysis enzyme complex/M2-PK and/or by inhibition of transaminases and/or by dissociation of the bond of malate dehydrogenase at p36.

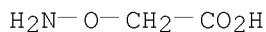
IT 645-88-5, Aminoxyacetic acid 645-88-5D, Aminoxyacetic acid, analogs

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sugar phosphates, amino acids, and analogs for modulation of glycolysis enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

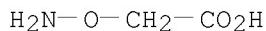
RN 645-88-5 CAPLUS

CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



RN 645-88-5 CAPLUS

CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



L8 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ED Entered STN: 13 Dec 1997

ACCESSION NUMBER: 1997:781042 CAPLUS

DOCUMENT NUMBER: 128:150611

ORIGINAL REFERENCE NO.: 128:29569a, 29572a

TITLE: Effects of α -aminoisobutyric acid and sucrose on the vase life of hybrid Limonium

AUTHOR(S): Shimamura, Misa; Ito, Akiko; Suto, Kenichi; Okabayashi, Hidenori; Ichimura, Kazuo

CORPORATE SOURCE: Ano, Ornamental Plants and Tea, National Research Institute of Vegetables, Mie, 514-23, Japan

SOURCE: Postharvest Biology and Technology (1997), 12(3), 247-253

PUBLISHER: CODEN: PBTEED; ISSN: 0925-5214

DOCUMENT TYPE: Elsevier Science Ireland Ltd.

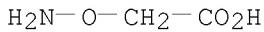
LANGUAGE: English

AB The effects of α -aminoisobutyric acid (AIB), aminoxyacetic acid (AOA) and sucrose on the vase life of hybrid Limonium cv. Blue fantasia 100 were investigated. The flowering branches, each with five subspikes, were cut from the inflorescence and the cut ends were put in the solns. to

be tested for 24 h, and thereafter in water. Sucrose at \geq 5 g L⁻¹ promoted bud opening. AIB at \geq 5 mM extended floret longevity. AOA had little effect on vase life. Treatment with 10 mM AIB in combination with 20 g L⁻¹ sucrose for 24 h promoted floret opening and inhibited floret senescence. Concns. of glucose, fructose and sucrose in florets of branches treated with AIB and sucrose were higher than those in the control florets. Ethylene production of AIB-treated florets was less than that of control florets. Thus, promotion of floret opening and extension of longevity by sucrose and AIB are due to increases in the concentration of sugars in tissue and inhibition of ethylene production. A pulse treatment with AIB in combination with sucrose was also effective in improving the vase life of cut whole inflorescences in hybrid Limonium.

IT 645-88-5, Aminooxyacetic acid
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (effects of aminooxyacetic acid and sucrose on vase life of hybrid Limonium)

RN 645-88-5 CAPLUS
 CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN
 ED Entered STN: 16 Apr 1994
 ACCESSION NUMBER: 1994:185426 CAPLUS
 DOCUMENT NUMBER: 120:185426
 ORIGINAL REFERENCE NO.: 120:32601a,32604a
 TITLE: Cut flower preservative comprising 1-aminocyclopropane-1-carboxylic acid (ACC) synthase inhibitor.
 INVENTOR(S): Shafer, Warren E.; Woolard, Derek D.; Samuel, Neyyan K. P.; Venburg, Gregory D.; Devisetty, Balan N.; Heiman, Daniel F.
 PATENT ASSIGNEE(S): Abbott Laboratories, USA
 SOURCE: U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 780,657, abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5284818	A	19940208	US 1993-26920	19930308

PRIORITY APPLN. INFO.: US 1991-780657 B2 19911018
 AB Stable, solid cut flower preservatives, having excellent shelf life and stability, comprise sugar and/or glycoside 1-99, ACC synthase inhibitor (AVG or carboxymethoxyamine) 0.05-2, Al2(SO4)3 (21-27% water of hydration) 0.5-8, and microbicide 0.05-5 parts by weight

IT 645-88-5, Carboxymethoxyamine
 RL: BIOL (Biological study)
 (cut flower preservative containing)

RN 645-88-5 CAPLUS
 CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 12 Dec 1987
ACCESSION NUMBER: 1987:614885 CAPLUS
DOCUMENT NUMBER: 107:214885
ORIGINAL REFERENCE NO.: 107:34415a,34418a
TITLE: Impairment of photorespiratory carbon flow into rubber by the inhibition of the glycolate pathway in guayule (*Parthenium argentatum* Gray)
AUTHOR(S): Reddy, A. Ramachandra; Suhasini, M.; Das, V. S. Rama
CORPORATE SOURCE: Sch. Biol. Earth Sci., Sri Venkateswara Univ., Tirupati, 517 502, India
SOURCE: Plant Physiology (1987), 84(4), 1447-50
CODEN: PLPHAY; ISSN: 0032-0889
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cut shoots of guayule (*P. argentatum*) were treated with four inhibitors of the glycolate pathway (α -hydroxypyridinemethanesulfonic acid; isonicotinic acid hydrazide, glycine hydroxamate, and amino-oxyacetate, AOA) in order to evaluate the role of photorespiratory intermediates in providing precursors for the biosynthesis of rubber. Photorespiratory CO₂ evolution in guayule leaves was severely inhibited by AOA. Application of each of the four inhibitors resulted in a significantly decreased incorporation of ¹⁴C into rubber fractions, suggesting that the glycolate pathway is involved in the biosynthesis of rubber in guayule. However, the application of each of the glycolate pathway inhibitors showed no significant effect on photosynthetic CO₂ fixation in the leaves. The inhibitors individually also reduced the incorporation of labeled glycolate, glyoxylate, and glycine into rubber, while the incorporation of serine and pyruvate was not affected. The effective inhibition of incorporation of glycolate pathway intermediates in the presence of AOA was due to an inhibition of glycine decarboxylase and serine hydroxymethyltransferase. It is concluded that serine is a putative photorespiratory intermediate in the biosynthesis of rubber via pyruvate and acetyl CoA.
IT 645-88-5
RL: BIOL (Biological study)
(glycolate pathway inhibition by, in *Parthenium argentatum*, rubber formation in relation to)
RN 645-88-5 CAPLUS
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



L8 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1980:141388 CAPLUS
DOCUMENT NUMBER: 92:141388
ORIGINAL REFERENCE NO.: 92:22909a,22912a
TITLE: Effects of ethyl hydrazinoacetate on gluconeogenesis and on ethanol oxidation in rat hepatocytes
AUTHOR(S): Rognstad, Robert

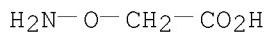
CORPORATE SOURCE: Cedars-Sinai Med. Cent., Los Angeles, CA, 90048, USA
SOURCE: Biochimica et Biophysica Acta, General Subjects
(1980), 628(1), 116-18
CODEN: BBGSB3; ISSN: 0304-4165

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Both Et hydrazinoacetate (I) [637-80-9] and aminoxyacetate (II) [645-88-5] strongly inhibited gluconeogenesis from L-lactate [79-33-4], but not from pyruvate [127-17-3] or fructose [57-48-7], in rat hepatocytes. I partially inhibited gluconeogenesis from polyols, and also partially inhibited EtOH [64-17-5] oxidation. In contrast to results obtained with II increasing the I concentration from 0.2-2 mM did not tend to diminish the inhibitory effect of this transaminase inhibitor EtOH or polyol utilization.

IT 645-88-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(gluconeogenesis by liver response to)

RN 645-88-5 CAPLUS
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



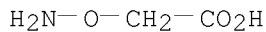
L8 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 22 Apr 2001
ACCESSION NUMBER: 1965:457400 CAPLUS
DOCUMENT NUMBER: 63:57400
ORIGINAL REFERENCE NO.: 63:10511h,10512a-b
TITLE: The effect of hydroxylamine and aminoxyacetic acid on the cerebral in vitro utilization of glucose, fructose, glutamic acid, and γ -aminobutyric acid
AUTHOR(S): Haber, Bernard
CORPORATE SOURCE: McGill Gen. Hosp. Res. Inst., Montreal
SOURCE: Canadian Journal of Biochemistry and Physiology
(1965), 43(7), 865-76
CODEN: CJBPAZ; ISSN: 0576-5544

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aerobic incubation of rat brain cortex slices leads to rapid incorporation of metabolite C from both glucose-U-14C and fructose-U-14C into glutamic acid, aspartic acid, glutamine, alanine, and γ -aminobutyric acid (I). Use of labeled glutamic acid results in greater incorporation into aspartic acid, and no labeling of alanine. Incorporation from I-1-14C is lowest of all and does not result in labeling of any alanine. Both NH₂OH and aminoxyacetic acid (II) abolish the incorporation of metabolite C into I and alanine, and diminish that of glutamine, with labeling of aspartic acid diminished when fructose is the substrate. Both inhibitors abolish all amino acid labeling from I-1-14C. The respiration of brain cortex slices is markedly diminished by II and by a high concentration of NH₂OH. Similar inhibitory effects are observed on ¹⁴CO₂ production. The inhibitory effects of II on incorporation of C from glucose, respiration, and CO₂ production are reversed by pyridoxal phosphate, and spectrophotometric data indicate that this is due to formation of a complex between the vitamin and the inhibitor.

IT 645-88-5, Acetic acid, (aminoxy)-

(in metabolism of amino acids and sugars by brain, pyridoxol phosphate
and)
RN 645-88-5 CAPLUS
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 17:56:46 ON 17 JUL 2009)

FILE 'REGISTRY' ENTERED AT 17:57:00 ON 17 JUL 2009

L1 STRUCTURE UPLOADED
L2 2 S L1 SSS SAM
L3 88 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:57:44 ON 17 JUL 2009

L4 1668 S L3
L5 89 S L4 AND PHARMACEU?
L6 8 S L5 AND CANCER
L7 0 S L4 AND FRUCTOSE (W) BISPHOSPHATE
L8 6 S L4 AND FRUCTOSE
L9 0 S L6 AND L8

=> s l4 and glycerol
157405 GLYCEROL
L10 11 L4 AND GLYCEROL

=> s l10 and l9
L11 0 L10 AND L9

=> d l10 ed ibib abs hitstr 1-11

L10 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 13 Mar 2009
ACCESSION NUMBER: 2009:299702 CAPLUS
DOCUMENT NUMBER: 150:530408
TITLE: Immobilization reduces the activity of surface-bound
cationic antimicrobial peptides with no influence upon
the activity spectrum
AUTHOR(S): Bagheri, Mojtaba; Beyermann, Michael; Dathe, Margitta
CORPORATE SOURCE: Leibniz-Institute of Molecular Pharmacology, Berlin,
13125, Germany
SOURCE: Antimicrobial Agents and Chemotherapy (2009), 53(3),
1132-1141
CODEN: AMACQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Early studies of immobilized peptides mainly focused upon the relationship
between structural properties and the activity of soluble and
surface-tethered sequences. The intention of this study was to analyze
the influence of immobilization parameters upon the activity profile of
peptides. Resin beads (TentaGel S NH₂, HypoGel 400 NH₂, and HypoGel 200
NH₂) with polyethylene glycol spacers of different lengths were rendered
antimicrobial by linkage of an amphipathic model KLAL peptide and
magainin-derived MK5E. Standard solid-phase peptide synthesis,

thioalkylation, and ligation strategies were used to immobilize the peptides at the C and N termini and via different side-chain positions. Depending upon the resin capacity and the coupling strategies, peptide loading ranged between 0.1 and 0.25 μ mol/mg for C-terminally and around 0.03 μ mol/mg for N-terminally and side-chain-immobilized peptides. Tethering conserved the activity spectra of the soluble peptides at reduced concns. The resin-bound peptides were antimicrobial toward Escherichia coli and Bacillus subtilis in the millimolar range compared to the results seen with micromolar concns. of the free peptides. B. subtilis was more susceptible than E. coli. The antimicrobial activity distinctly decreased with reduction of the spacer length. Slight differences in the antimicrobial effect of KLAL and MK5E bound at different chain positions on TentaGel S NH₂ suggest that the activity is less dependent upon the position of immobilization. Soluble KLAL was active toward red blood cells, whereas MK5E was nonhemolytic at up to about 400 μ M. Resin-induced hemolysis hampered the determination of the hemolytic effect of the immobilized peptides. TentaGel S NH₂-bound peptides enhanced the permeability of the POPC (1-palmitoyl-2-oleoyl-sn-glycero-3-phospho-choline) and mixed POPC/1-palmitoyl-2-oleoyl-sn-glycero-3-[phospho-rac-(1-glycerol)] (POPC/POPG) bilayers used to model the charge properties of the biol. targets. The results suggest that surface immobilization of the cationic amphipathic antimicrobial peptides does not influence the membrane-permeabilizing mode of action. Peptide insertion into the target membrane and likely the exchange of membrane-stabilizing bivalent cations contribute to the antimicrobial effect. In conclusion, reasonable antimicrobial activity of surface-bound peptides requires the optimization of the coupling parameters, with the length of the spacer and the amount of target-accessible peptide being the most important factors.

IT 645-88-5, Aminooxy acetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(immobilization reduces the activity of surface-bound cationic antimicrobial peptides with no influence upon the activity spectrum)

RN 645-88-5 CAPLUS

CN Acetic acid, 2-(aminooxy)- (CA INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 25 Nov 2008
ACCESSION NUMBER: 2008:1413878 CAPLUS
DOCUMENT NUMBER: 150:17383
TITLE: Test kit with colloidal-gold-labeled monoclonal antibody for rapid detection of norketamine and its preparation method
INVENTOR(S): Zhao, Xiaolian; Zhao, Chuncheng; Shen, Xiaoping; Wei, Wanli; He, Jinhai; Cai, Jianrong; Zhang, Lingchang; Gong, Yan; Sun, Weirong; Zhang, Dongsheng; Cai, Zhengsen; Wu, Jie; Shen, Wenyan; Wang, Wenjing; Ye, Jin
PATENT ASSIGNEE(S): Jiangsu Suwei Microorganism Research Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 14pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101308139	A	20081119	CN 2008-10131795	20080630
PRIORITY APPLN. INFO.:				
AB The title test kit comprises a test strip, an injection hole, and an observation hole. The test strip is sealed in the test kit, and comprises a poly(vinyl chloride) or polyethylene substrate, a glass fiber film at one terminal for receiving injected sample, a nitrocellulose film at the middle for detection, and a piece of absorbent paper at the other terminal. Anti-norketamine monoclonal antibody labeled with colloidal gold is adsorbed onto the glass fiber film. There is a small overlapping between the glass fiber film and the nitrocellulose film. The nitrocellulose film comprises a detection line prepared from norketamine-ovalbumin conjugate and a quality control line prepared from goat-anti-mouse IgG, orderly towards the absorbent paper in direction, and is coated with 1% bovine serum albumin. The glass fiber film and the nitrocellulose film are corresponding to the injection hole and the observation hole, resp. in location. The test kit can be used for detecting norketamine with a rapid, simple, and sensitive process.				
IT 645-88-5	RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses) (test kit with colloidal-gold-labeled monoclonal antibody for rapid detection of norketamine and its preparation method)			
RN 645-88-5 CAPLUS				
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)				



L10 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 04 Aug 2003
ACCESSION NUMBER: 2003:595380 CAPLUS
DOCUMENT NUMBER: 139:257236
TITLE: Crystal Structure of Alanine:Glyoxylate Aminotransferase and the Relationship Between Genotype and Enzymatic Phenotype in Primary Hyperoxaluria Type 1
AUTHOR(S): Zhang, Xiaoxuan; Roe, S. Mark; Hou, Yanwen; Bartlam, Mark; Rao, Zihe; Pearl, Laurence H.; Danpure, Christopher J.
CORPORATE SOURCE: Department of Biology, University College London, London, WC1E 6BT, UK
SOURCE: Journal of Molecular Biology (2003), 331(3), 643-652
CODEN: JMOBAK; ISSN: 0022-2836
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A deficiency of the liver-specific enzyme alanine:glyoxylate aminotransferase (AGT) is responsible for the potentially lethal hereditary kidney stone disease primary hyperoxaluria type 1 (PH1). Many of the mutations in the gene encoding AGT are associated with specific enzymic phenotypes such as accelerated proteolysis (Ser205Pro), intra-peroxisomal aggregation (Gly41Arg), inhibition of pyridoxal phosphate binding and loss of catalytic activity (Gly82Glu), and peroxisome-to-mitochondrion mistargeting (Gly170Arg). Several mutations, including that responsible for AGT mistargeting, co-segregate and interact

synergistically with a Pro11Leu polymorphism found at high frequency in the normal population. In order to gain further insights into the mechanistic link between genotype and enzymic phenotype in PH1, we have determined the crystal structure of normal human AGT complexed to the competitive inhibitor amino-oxyacetic acid to 2.5 Å. Anal. of this structure allows the effects of these mutations and polymorphism to be rationalized in terms of AGT tertiary and quaternary conformation, and in particular it provides a possible explanation for the Pro11Leu-Gly170Arg synergism that leads to AGT mistargeting.

IT 645-88-5D, Amino-oxyacetic acid, complexes with alanine:glyoxylate aminotransferase

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(crystal structure of alanine:glyoxylate aminotransferase and relationship between genotype and enzymic phenotype in primary hyperoxaluria type 1)

RN 645-88-5 CAPLUS

CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ED Entered STN: 23 Jun 2003

ACCESSION NUMBER: 2003:477515 CAPLUS

DOCUMENT NUMBER: 139:132045

TITLE: Primary hyperoxaluria type 1 in the Canary Islands: A conformational disease due to I244T mutation in the P11L-containing alanine:glyoxylate aminotransferase

Santana, A.; Salido, E.; Torres, A.; Shapiro, L. J. Hospital Universitario Canarias, Tenerife, 38320, Spain

AUTHOR(S):
CORPORATE SOURCE:
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2003), 100(12), 7277-7282
CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

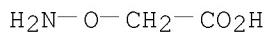
AB Primary hyperoxaluria type 1 (PH1) is an inborn error of metabolism resulting from a deficiency of alanine:glyoxylate aminotransferase (AGXT; EC 2.6.1.44). Most of the PH1 alleles detected in the Canary Islands carry the Ile-244 → Thr (I244T) mutation in the AGXT gene, with 14 of 16 patients homozygous for this mutation. Four polymorphisms within AGXT and regional microsatellites also were shared in their haplotypes (AGXT*LTM), consistent with a founder effect. The consequences of these amino acid changes were investigated. Although I244T alone did not affect AGXT activity or subcellular localization, when present in the same protein mol. as Leu-11 → Pro (L11P), it resulted in loss of enzymic activity in soluble cell exts. Like its normal counterpart, the AGXT*LTM protein was present in the peroxisomes but it was insol. in detergent-free buffers. The polymorphism L11P behaved as an intragenic modifier of the I244T mutation, with the resulting protein undergoing stable interaction with mol. chaperones and aggregation. This aggregation was temperature-sensitive. AGXT*LTM expressed in Escherichia coli, as a GST-fusion protein, and in insect cells could be purified and retained enzymic activity. Among various chemical chaperones tested in cell culture, betaine substantially improved the solubility of the mutant protein and the enzymic

activity in cell lysates. In summary, I244T, the second most common mutation responsible for PH1, is a protein conformational disease that may benefit from new therapies with pharmacol. chaperones or small mols. to minimize protein aggregation.

IT 645-88-5, Aminoxyacetic acid
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(primary hyperoxaluria type 1 in Canary Islands as conformational disease due to I244T mutation in P11L-containing alanine:glyoxylate aminotransferase in relation to effect of chemical chaperones)

RN 645-88-5 CAPLUS

CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 29 Apr 1995
ACCESSION NUMBER: 1995:517687 CAPLUS
DOCUMENT NUMBER: 122:287996
ORIGINAL REFERENCE NO.: 122:52455a,52458a
TITLE: The influence of thyroid state on hepatic glycolysis
AUTHOR(S): Gregory, Roland B.; Berry, Michael N.
CORPORATE SOURCE: School Medicine, Flinders Univ. South Australia,
Adelaide, 5001, Australia
SOURCE: European Journal of Biochemistry (1995), 229(2), 344-8
CODEN: EJBCAI; ISSN: 0014-2956

PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of thyroid status on glycolysis using 10, 20, and 40 mM glucose have been examined in hepatocytes derived from hypothyroid, euthyroid, and hyperthyroid rats. For any given concentration of added glucose, total glycolytic rates, as measured by the release of tritium from [6-3H]glucose, were similar in all thyroid states. The aerobic component of glycolysis, where cytoplasmically generated reducing equivalent are transferred to the mitochondria for oxidation, was the major component in the hyperthyroid state, at all concns. of glucose. In contrast, the aerobic proportion of glycolysis in the hypothyroid and euthyroid states decreased with increasing concentration of added glucose and the anaerobic component became

dominant above 20 mM glucose. Cytoplasmic reducing equivalent generated during aerobic glycolysis were transferred to the mitochondria via both the glycerol 1-phosphate and malate/aspartate shuttles in each thyroid state, even though the former shuttle was considerably depressed in the livers of hypothyroid rats. Both asparagine and aminoxyacetate had only minor effects on the rate of glycolysis, but aminoxyacetate depressed the contribution of aerobic glycolysis whereas asparagine had relatively little influence. The respiration rate in the presence of 40 mM glucose was twice as high in hepatocytes from hyperthyroid rats as in cells from hypothyroid animals, and 1.4 times as high as in hepatocytes from euthyroid rats. Smaller stimulations were observed with lower concns. of added glucose. Furthermore, the increase in respiratory rate over the endogenous value, induced by 10 mM glucose, was six times higher in cells from hyperthyroid rats over the hepatocytes from hypothyroid animals and 2.7 times higher than that observed with cells from euthyroid rats. The

insensitivity of glycolysis to thyroid status in contrast to the marked response of respiration provides addnl. support for the view that the stimulation of metabolism by thyroid hormone is mediated primarily by its action on mitochondrial processes.

IT 645-88-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(aminoxyacetate effect on glycolysis in hepatocytes in hypothyroidism, hyperthyroidism and euthyroidism in relation to respiration rate)
RN 645-88-5 CAPLUS
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



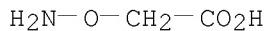
L10 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 17 Sep 1988

ACCESSION NUMBER: 1988:486767 CAPLUS
DOCUMENT NUMBER: 109:86767
ORIGINAL REFERENCE NO.: 109:14355a,14358a
TITLE: Calcium-dependent activation of the malate-aspartate shuttle by norepinephrine and vasopressin in perfused rat liver
AUTHOR(S): Sugano, Tsukasa; Nishimura, Kazuhiko; Sogabe, Naomi; Shiota, Masakazu; Oyama, Naoki; Noda, Shigeru; Ohta, Mitsuaki
CORPORATE SOURCE: Coll. Agric., Univ. Osaka Prefect., Sakai, 591, Japan
SOURCE: Archives of Biochemistry and Biophysics (1988), 264(1), 144-54
CODEN: ABBIA4; ISSN: 0003-9861

DOCUMENT TYPE: Journal
LANGUAGE: English

AB The role of Ca²⁺ in the stimulation of the malate-aspartate shuttle by norepinephrine and vasopressin was studied in perfused rat liver. Shuttle capacity was indexed by measuring the changes in both the rate of production of glucose from sorbitol and the ratio of lactate to pyruvate during the oxidation of ethanol. Asparagine (0.5 mM), but not alanine (0.5 mM), decreased the ethanol-induced responses. Norepinephrine and vasopressin had no effect on the ethanol-induced responses when the liver was perfused with sorbitol or glycerol. In the presence of 0.25 mM alanine, norepinephrine, vasopressin, and A 23187 decreased the ethanol-induced responses that occurred with the increase of flux of Ca²⁺. In the liver perfused with a Ca²⁺-free medium, asparagine also decreased the ethanol-induced responses, but norepinephrine and vasopressin had no effect. Aminoxyacetate inhibited the effects of norepinephrine, A 23187, and asparagine. Regardless of the presence or absence of perfusate Ca²⁺, the combination of glucagon and alanine had no effect on the ethanol-induced responses. Norepinephrine caused a decrease in the levels of α-ketoglutarate, aspartate, and glutamate in hepatocytes incubated with Ca²⁺. Apparently, the redistribution of cellular Ca²⁺ may activate the efflux of aspartate from mitochondria in the rat liver, resulting in an increase in the capacity of the malate-aspartate shuttle.

IT 645-88-5
RL: BIOL (Biological study)
(aspartate-malate shuttle stimulation by norepinephrine and vasopressin inhibition by, in liver, gastrin in relation to)
RN 645-88-5 CAPLUS
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



L10 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ED Entered STN: 15 May 1987

ACCESSION NUMBER: 1987:154703 CAPLUS

DOCUMENT NUMBER: 106:154703

ORIGINAL REFERENCE NO.: 106:25181a, 25184a

TITLE: Novel stabilization of phenylalanine ammonia-lyase catalyst during bioconversion of trans-cinnamic acid to L-phenylalanine

AUTHOR(S): Evans, Christopher T.; Conrad, Dayle; Hanna, Kim; Peterson, Wendy; Choma, Christin; Misawa, Masanaru

CORPORATE SOURCE: Allelix Inc., Mississauga, ON, Can.

SOURCE: Applied Microbiology and Biotechnology (1987), 25(5), 399-405

CODEN: AMBIDG; ISSN: 0175-7598

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Production of L-phenylalanine [63-91-2] from trans-cinnamic acid [140-10-3] using isolate SPA10 cells was reduced to 26% of that observed initially when cells were reacted a 2nd time with fresh substrate mixture. The stability (reusability) of phenylalanine ammonia-lyase (PAL) [9024-28-6]-containing cells was significantly influenced by both the trans-cinnamate concentration and

initial reaction pH. Using 2% cinnamate, L-phenylalanine production was 7-fold greater after 3 successive runs at pH 9.0 than at the optimum of pH 10.2. Cells reacted in the presence of 5% cinnamate were relatively unstable. Permeabilizing agents, such as toluene and xylene, stimulated L-phenylalanine production but also enhanced instability of the catalyst. Several effectors stimulated the initial rate of PAL bioconversion, but only sorbitol [50-70-4], alginate, glutaraldehyde, polyethylene glycol and glycerol conferred any significant degree of stability.

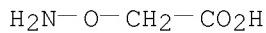
Sparging of cultures and bioreactors with various gases revealed that O₂ enhanced PAL inactivation, CO₂ had little effect, and N₂ conferred remarkable stability on PAL activity for several weeks in culture medium. The presence of Cl (from HCl) and aeration of substrate mixts. resulted in poor reusability of catalyst. A combination of H₂SO₄ substitution for HCl and N₂-sparging resulted in excellent initial conversions and good catalyst stability at 26° but less at 30°. The inclusion of 1.5 M sorbitol in reaction mixts. maintained PAL stability over several successive incubations.

IT 645-88-5

RL: BIOL (Biological study)
(phenylalanine ammonia-lyase of Rhodotorula rubra inhibition by)

RN 645-88-5 CAPLUS

CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



L10 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ED Entered STN: 18 May 1985

ACCESSION NUMBER: 1985:163760 CAPLUS

DOCUMENT NUMBER: 102:163760

ORIGINAL REFERENCE NO.: 102:25699a, 25702a

TITLE: A low-molecular-weight polypeptide which accumulates

AUTHOR(S): upon inhibition of porphyrin biosynthesis in maize
Schuster, Ayelet; Harel, Eitan
CORPORATE SOURCE: Dep. Bot., Hebrew Univ., Jerusalem, 91904, Israel
SOURCE: Plant Physiology (1985), 77(3), 648-52
CODEN: PLPHAY; ISSN: 0032-0889
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Levulinic acid, an inhibitor of porphyrin biosynthesis, caused marked accumulation of a low-mol.-weight polypeptide in greening corn (*Zea mays*) leaves. Addnl. compds. which interfere with porphyrin synthesis (e.g. aminoxyacetate, iron-chelators, 4,6-dioxoheptanoic acid) had a similar effect. The polypeptide accumulated in the cytosol and could not be detected in the plastid stroma. Its mol. weight was estimated as 4800 daltons by electrophoresis in SDS-acrylamide gels containing urea and glycerol. The accumulation of the polypeptide did not result from inhibition of chlorophyll or protoheme syntheses. Compds. which caused its accumulation markedly reduced the activity of nitrite reductase. It is suggested that the accumulation is caused by inhibition of siroheme synthesis which interferes with the formation of nitrite or sulfite reductase.
IT 645-88-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(peptide formation by corn response to)
RN 645-88-5 CAPLUS
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



L10 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 26 Jan 1985
ACCESSION NUMBER: 1985:20940 CAPLUS
DOCUMENT NUMBER: 102:20940
ORIGINAL REFERENCE NO.: 102:3425a,3428a
TITLE: Effect of mutants and inhibitors on mitochondrial transport systems in vivo in yeast
AUTHOR(S): Wills, Christopher; Benhaim, Prosper; Martin, Tracy
CORPORATE SOURCE: Dep. Biol., Univ. California, San Diego, La Jolla, CA, 92093, USA
SOURCE: Biochimica et Biophysica Acta, Biomembranes (1984), 778(1), 57-66
CODEN: BBBMBS; ISSN: 0005-2736
DOCUMENT TYPE: Journal
LANGUAGE: English
AB One or more mitochondrial transport systems (Wills, C. and Martin, T., 1984) may be involved in the regulation of the inducible alc. dehydrogenase of yeast, ADH-II. In *Saccharomyces cerevisiae* mutants inhibitors of the malate-phosphate (Bu malonate), malate-citrate (hydroxycitrate), and malate- α -ketoglutarate (aminoxyacetate or cycloserine) transport systems all operate in vivo. While the demonstration of the in vivo inhibitory activity of Bu malonate and hydroxycitrate is entirely by physiol. methods, that of the transaminase inhibitors aminoxyacetate and cycloserine depends in part on the isolation of mutants capable of growth on glycerol in minimal medium. On this medium these mutants depend on the malate-aspartate shuttle for growth, and as expected the transaminase inhibitors prevent their growth. Two of the mutants show an enhanced rate of mitochondrial glutamate uptake. A preliminary survey of the properties of the

glycerol growth mutants is presented, showing that the probable mode of action of these mutants is an increase in the efficiency of the malate-aspartate shuttle.

IT 645-88-5
RL: BIOL (Biological study)
(mitochondrial transport yeast inhibition by)
RN 645-88-5 CAPLUS
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



L10 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ED Entered STN: 12 May 1984

ACCESSION NUMBER: 1978:725 CAPLUS

DOCUMENT NUMBER: 88:725

ORIGINAL REFERENCE NO.: 88:155a,158a

TITLE: Futile hydrogen cycling in liver cells from triiodothyronine treated rats

AUTHOR(S): Rognstad, Robert

CORPORATE SOURCE: Cedars-Sinai Med. Res. Inst., Los Angeles, CA, USA

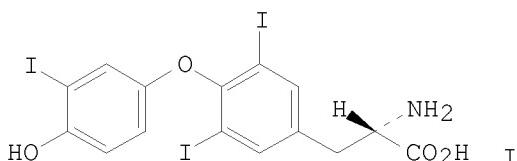
SOURCE: Biochemical and Biophysical Research Communications (1977), 78(3), 881-8

CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

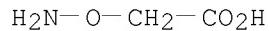


AB Aminoxyacetate [645-88-5], a transaminase inhibitor, did not inhibit gluconeogenesis from sorbitol or glycerol, and ethanol [64-17-5] did not inhibit gluconeogenesis from L-lactate [79-33-4] in liver cells prepared from triiodothyronine (I) [6893-02-3]-treated rats. These results are in accord with the previously documented marked increase in α -glycerol phosphate shuttle activity induced by thyroid hormones. Aminoxyacetate inhibited gluconeogenesis from L-lactate in hepatocytes from I-treated rats by only about 30% (vs 90% in hepatocytes from normal rats). Also, pyruvate kinase [9001-59-6] flux during gluconeogenesis from L-lactate was markedly increased in liver cells from fasted, I-treated, rats.

IT 645-88-5
RL: BIOL (Biological study)
(gluconeogenesis response to, in liver, triiodothyronine effect on)
RN 645-88-5 CAPLUS
CN Acetic acid, 2-(aminoxy)- (CA INDEX NAME)



L10 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1974:421764 CAPLUS
DOCUMENT NUMBER: 81:21764
ORIGINAL REFERENCE NO.: 81:3501a,3504a
TITLE: Effects of aminoxyacetate on the metabolism of isolated liver cells
AUTHOR(S): Rognstad, Robert; Clark, Dallas G.
CORPORATE SOURCE: Res. Inst., Cedars-Sinai Med. Cent., Los Angeles, CA, USA
SOURCE: Archives of Biochemistry and Biophysics (1974), 161(2), 638-46
CODEN: ABBIA4; ISSN: 0003-9861
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Aminoxyacetate hemihydrochloride [2921-14-4], an inhibitor of glutamate-aspartate transaminase [9000-97-9], inhibited gluconeogenesis from lactate, glycerol, sorbitol, and xylitol, inhibited detritiation of 2-3H-labeled L-aspartate [56-84-8], inhibited urea [57-13-6] formation, and inhibited ethanol [64-17-5] utilization by isolated rat liver cells. Aminoxyacetate caused little or no inhibition of gluconeogenesis from pyruvate. Although aminoxyacetate was a useful tool in studying the transport of NADH hydrogen across the mitochondrial membrane, the role of a malate-aspartate cycle in this process remained somewhat uncertain.
IT 2921-14-4
RL: PRP (Properties)
(liver metabolism response to, glutamate-aspartate transaminase inhibition in relation to)
RN 2921-14-4 CAPLUS
CN Acetic acid, 2-(aminoxy)-, hydrochloride (2:1) (CA INDEX NAME)



●1/2 HCl